

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 12276351	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/AU2004/001099	International filing date (<i>day/month/year</i>) 17 August 2004	Priority date (<i>day/month/year</i>) 19 August 2003
International Patent Classification (IPC) or national classification and IPC Int. Cl. ⁷ G06F 17/30		
Applicant RAPID INTELLIGENCE PTY LTD et al		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of 3 sheets, including this cover sheet.	
3. This report is also accompanied by ANNEXES, comprising:	
a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of 11 sheets, as follows:	
<input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).	
<input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.	
b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or table related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).	
4. This report contains indications relating to the following items:	
<input checked="" type="checkbox"/> Box No. I	Basis of the report
<input type="checkbox"/> Box No. II	Priority
<input type="checkbox"/> Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/> Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/> Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/> Box No. VI	Certain documents cited
<input type="checkbox"/> Box No. VII	Certain defects in the international application
<input type="checkbox"/> Box No. VIII	Certain observations on the international application

Date of submission of the demand 17 June 2005	Date of completion of the report 30 November 2005
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer DALE SIVER Telephone No. (02) 6283 2196

Box No. I **Basis of the report**

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language which is the language of a translation furnished for the purposes of:

☐ international search (under Rules 12.3 and 23.1 (b))

☐ publication of the international application (under Rule 12.4)

☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

☐ the international application as originally filed/furnished

☒ the description:

pages **1-59** as originally filed/furnished

pages* received by this Authority on with the letter of

pages* received by this Authority on with the letter of

☒ the claims:

pages as originally filed/furnished

pages* as amended (together with any statement) under Article 19

pages* **60-70** received by this Authority on **20 June 2005** with the letter of **20 June 2005**

pages* received by this Authority on with the letter of

☒ the drawings:

pages **1/5 to 15/15** as originally filed/furnished

pages* received by this Authority on with the letter of

pages* received by this Authority on with the letter of

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages

☐ the claims, Nos.

☐ the drawings, sheets/figs

☐ the sequence listing (*specify*):

☐ any table(s) related to the sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages

☐ the claims, Nos.

☐ the drawings, sheets/figs

☐ the sequence listing (*specify*):

☐ any table(s) related to the sequence listing (*specify*):

* If item 4 applies, some or all of those sheets may be marked "superseded."

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims 1-86,88-91	YES
	Claims 87	NO
Inventive step (IS)	Claims 1-86,91	YES
	Claims 87-90	NO
Industrial applicability (IA)	Claims 1-91	YES
	Claims	NO

2. Citations and explanations (Rule 70.7)

- D1 WO 2002/080550 A1 (BRITISH TELECOM) 10 October 2002
D2 US 2002/0091835 A1 (LENTINI et al.) 11 July 2002
D3 EP 1094408 A2 (LG ELECTRONICS INC.) 25 April 2001
D4 WO 2001/044992 A1 (YELLOWBRIX, INC.) 21 June 2001
D5 US 2001/0047357 A1 (VAITHILINGAM et al.) 29 November 2001
D6 EP 1223757 A2 (METABYTE NETWORKS, INC.) 17 July 2002
D7 US 2002/0193066 A1 (CONNELLY) 19 December 2002
D8 EP 1315110 A2 (WebTV Networks, Inc.) 28 May 2003
D9 WO 2002/043353 A2 (MYDTV, INC.) 30 May 2002

Novelty (N)

D1 discloses "content definition" explicitly (see abstract and elsewhere). The content definition is used to control the presentation of content (eg. video on demand or news feed). D1 does not disclose "content definition being modified by modifying the parameters in accordance with weightings, the weightings being indicative of the ability of content defined by the parameters to meet predetermined objectives". Claim 1 is novel in light of D1.

Similarly for many of the amended claims the feature added from original claim 6 and the like is not found in any one of the citations.

Goal seeking or "targeted advertising" with feedback is disclosed in D4 and D8. D8 also discloses weighting parameters associated with modifying the content definition. Finally D8 specifically discloses modifying the weightings based to control "frequency of presentation". The failure (in claim 87) to fully define the invention renders claim 87 not novel in light of D8.

Inventive step (IS)

The feature of modifying the "content definition" in accordance with weightings, the "weightings being indicative of the ability of content defined by the parameters to meet predetermined objectives" appears from reading the description and the prior art to be essential to the "inventive concept".

Claim 87 lacks an inventive step when D8 is taken alone. Some prior art content management systems had "weightings" that were not necessarily indicative of the ability to meet predetermined objectives. They may have been parameters and weightings that were also unrelated to the "objective" or goal of the content presentation. Claims which define the weighting indicative of the ability to meet the objective feature are considered to involve an inventive step. Claims 87-90 also lack an inventive step when D8 is combined with D1.

Industrial applicability (IA)

The method, system and apparatus disclosed has an industrial application (eg. content management).

- 60 -

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

- 1) A method of controlling the presentation of content, the method including, in a processing system:
 - (a) Presenting content to a user in accordance with a content definition, the content definition including a number of parameters used to define content to be presented; and,
 - 5 (b) Causing the content definition to be modified to thereby selectively modify the content to be presented, the content definition being modified by modifying the parameters in accordance with weightings, the weightings being indicative of the ability of content defined by the parameters to meet predetermined objectives.
- 2) A method according to claim 1, wherein the content definition includes at least one of:
 - 10 (a) A content network; and,
 - (b) A content indication.
- 3) A method according to claim 1 or claim 2, wherein the method includes:
 - (a) Determining if a respective modification results in the respective content being more successful at meeting predefined objectives; and,
 - 15 (b) Increasing the frequency of presentation of the respective content in response to a successful determination.
- 4) A method according to any one of the claims 1 to 3, wherein the content definition includes a content network having a number of nodes interconnected via a number of links, the links being used to define the content to be presented, and wherein the method includes modifying the content definition by modifying weightings associated with one or more of the links.
- 20 5) A method according to any one of the claims 1 to 4, wherein the method includes presenting content in accordance with input commands from the user.
- 6) A method according to claim 5, wherein the commands include an indication of the selection of content to be presented.
- 25 7) A method according to any one of the claims 1 to 6, wherein the method includes modifying the content definition at least one of:
 - (a) Randomly;
 - (b) In accordance with user responses; and,
 - (c) So as to increase the likelihood of the presented content meeting predefined objectives.
- 30 8) A method according to any one of the claims 1 to 7, wherein the method includes iteratively modifying the content presented over time.
- 9) A system for controlling the presentation of content, the system including a processing system for:
 - (a) Presenting content to a user in accordance with a content definition, the content definition including a number of parameters used to define the content to be presented; and,
 - 35 (b) Selectively modifying the content definition to thereby selectively modify content to be presented, the content definition being modified by modifying the parameters in accordance with

- 61 -

weightings, the weightings being indicative of the ability of content defined by the parameters to meet predetermined objectives.

10) A system according to claim 9, wherein the system performs the method of any one of the claims 1 to 8.

5 11) A method of controlling the presentation of content instances using a processing system, the method including causing the processing system to:

(a) Present one or more content instances to the user in accordance with a content network, the content network including:

- 10 (i) a plurality of nodes, each node being associated with one or more content instances;
(ii) one or more links for interconnecting the plurality of nodes to define sequences of content instances; and,

(b) Determine one or more responses provided by the user in response to the presentation of the one or more content instances;

15 (c) Evaluate the one or more responses in accordance with predetermined criteria to thereby determine the ability of the one or more presented content instances to satisfy predefined objectives; and,

(d) Modify the content network in accordance with the results of the evaluation.

12) A method according to claim 11, wherein the predefined objectives include the effectiveness of a content instance sequence at retaining a user's interest.

20 13) A method according to claim 11 or claim 12, the method including repeatedly modifying the content network such that content instances that are determined to be more able to satisfy the predetermined objectives are presented.

25 14) A method according to any one of the claims 11 to 13, the method including modifying the content network iteratively to thereby optimise the content network such that the ability of the content network to satisfy the predetermined objectives is improved.

15) A method according to any one of the claims 11 to 14, each node including an indication of a presentation instance, each presentation instance being associated with one or more content instances, and each content instance being associated with a number of presentation instances

30 16) A method according to claim 15, the content network including a weighting associated with each link.

17) A method according to claim 16, the method including causing the processing system to modify the content network by modifying the weightings in accordance with the responses.

35 18) A method according to claim 17, the method including repeatedly modifying the weightings in accordance with determined responses to thereby modify the weightings of links according to how well they satisfy the predetermined objectives.

19) A method according to any one of the claims 16 to 18, the method including causing the processing system to present the content instances by:

- 62 -

- (a) Presenting one or more of the content instances associated with a respective presentation instance;
 - (b) Selecting a link in accordance with the one or more responses, the link connecting the respective presentation instance to a subsequent presentation instance;
 - 5 (c) Presenting the one or more content instances associated with the subsequent presentation instance; and,
 - (d) Repeating steps (b) and (c) as required.
- 20) A method according to claim 19, at least one of the responses including a request, the method including causing the processing system to select a link in accordance with the request.
- 10 21) A method according to claim 20, each presentation instance including one or more request options, each request option having one or more links associated therewith, the method including causing the processing system to:
- (a) Determine the request from the one or more responses;
 - (b) Select a request option corresponding to the request; and,
 - 15 (c) Select one of the links associated with the selected request option.
- 22) A method according to any one of the claims 19 to 21, the method including causing the processing system to modify the weightings of selected links by:
- (a) Determining the one or more responses to the presentation of the one or more content instances associated with a respective presentation instance; and,
 - 20 (b) Modifying the weighting of each link selected prior to the content instances being presented in accordance with the determined response.
- 23) A method according to any one of the claims 19 to 22, the method including causing the processing system to modify the content network by modifying the links, the modifications including at least one of:
- 25 (a) Removing a respective link;
 - (b) Creating a new link; and,
 - (c) Moving a link from one presentation instance to another presentation instance.
- 24) A method according to claim 23, the method including causing the processing system to compare one or more of the weightings to a predetermined threshold and perform the modification in
- 30 accordance with the results of the comparison.
- 25) A method according to claim 24, the predetermined threshold being determined in accordance with the weighting of other links in the content network.
- 26) A method according to claim 23 or claim 24, the method including causing the processing system to create a new link if at least one of:
- 35 (a) The weighting of one or more existing links falls below a lower threshold;
 - (b) A rating of one or more content instances or presentation instances falls below a lower threshold; and,

- 63 -

- (c) The weighting of one or more existing links is above an upper threshold; and,
- (d) A rating of one or more content instances or presentation instance is above an upper threshold.
- 27) A method according to any of one of the claims 24 to 26, the method including causing the processing system to remove a link if at least one of:
 - 5 (a) The weighting of the link falls below a lower threshold; and,
 - (b) One of the presentation instances to which the link is associated is removed.
- 28) A method according to any one of the claims 19 to 27, the method including causing the processing system to update the content network by:
 - (a) Determining one or more new presentation instances; and,
 - 10 (b) Create one or more links associated with each new presentation instance, the links linking each new presentation instance to one or more existing or other new presentation instances.
- 29) A method according to claim 28, the method including determining the new presentation instances in accordance with ratings associated with each content instance or each presentation instance.
- 30) A method according to any one of the claims 19 to 29, the method including causing the processing system to:
 - 15 (a) Determine the one or more content instances associated with a respective presentation instance;
 - (b) Select one or more of the content instances; and,
 - (c) Present the one or more selected content instances.
- 31) A method according to any one of the claims 19 to 30, the method including causing the processing system to:
 - 20 (a) Determine a weighting for each content instance associated with the presentation instance; and,
 - (b) Select the one or more content instances associated with the presentation instance in accordance with the determined weighting.
- 32) A method according to any one of the claims 19 to 31, each presentation instance having one or more content instance criteria associated therewith, the method including causing the processing system to:
 - 25 (a) Determine the one or more content instance criteria; and,
 - (b) Select one or more content instances in accordance with the content instance criteria.
- 33) A method according to any one of the claims 19 to 32, one or more of the content instances, the presentation instances or the links including predetermined instructions, the method including causing the processing system to:
 - 30 (a) Determine the instructions; and,
 - (b) Present one or more content instances in accordance with the instructions.
- 34) A method according to claim 33, the instructions including references to one or more content instances, the method including causing the processing system to:
 - 35 (a) Select the one or more content instances in accordance with the instructions; and,
 - (b) Present the one or more content instances.

- 64 -

- 35) A method according to any of the claims 30 to 34, the method including selecting the one or more content instances in accordance with at least one of:
- (a) A content instance rating;
 - (b) A content instance weighting;
 - 5 (c) A content instance type, each content instance having an associated type determined in accordance with the nature of content contained therein; and,
 - (d) Descriptive data (structured or unstructured) pertaining to the content instance's relationship to other content instances.
- 10 36) A method according to any of the claims 11 to 35, each content instance, presentation instance, link or content instance combination having an associated rating, the method including causing the processing system to:
- (a) Evaluate each response in accordance with the predetermined criteria;
 - (b) Determine a rating modification in accordance with the results of the evaluation; and,
 - 15 (c) Apply the rating modification to the corresponding content instance, presentation instance, link or content instance combination upon which the response is based.
- 37) A method according to claim 36, the predetermined criteria including one or more criteria instances, each criteria instance including an indication of a respective rating modification, the method including causing the processing system to:
- (a) Evaluate each response in accordance with one or more selected criteria instances; and,
 - 20 (b) Determine the associated rating modification in accordance with the results of the evaluation.
- 38) A method according to any one of the claims 11 to 37, the content instances being stored in a store, the method including causing the processing system to:
- (a) Receiving new content instances;
 - (b) Storing the new content instances in the store; and,
 - 25 (c) Amending the content network in accordance with the new content instances.
- 39) A method according to any one of the claims 11 to 38, the method including causing the processing system to determine from the response at least one of:
- (a) A rating provided in response to the presentation of the content instance, the rating being provided by the user;
 - 30 (b) An indication of the length of time the user spent observing the content instance; and,
 - (c) An indication of whether the presentation of the content instance to the user caused a predetermined event.
- 40) A method according to any one of the claims 11 to 39, the one or more of the responses including a request, the method including causing the processing system to present further content instances in accordance with the determined requests.
- 35 41) A method according to any one of the claims 11 to 40, the processing system being coupled to an end station via a communications network, the method including causing the processing system to:

- 65 -

- (a) Transfer content instance to be presented to the end station via the communications network, the end station being adapted to present the content instance to the user; and,
- (b) Receive a response generated by the end station via the communications network.
- 42) A method according to any one of the claims 11 to 41, the method being a method according to any one of the claims 1 to 9.
- 43) A method of controlling the presentation of content instances using a processing system, the method being substantially as hereinbefore described with reference to the accompanying drawings.
- 44) Apparatus for controlling the presentation of content instances, the apparatus including a processing system adapted to:
- (a) Present one or more content instances to the user in accordance with a content network, the content network including:
- (i) a plurality of nodes, each node being associated with one or more content instances;
- (ii) one or more links for interconnecting the plurality of nodes to define sequences of content instances; and,
- (b) Determine one or more responses provided by the user;
- (c) Evaluate the one or more responses in accordance with predetermined criteria to thereby determine the ability of the one or more presented content instances to satisfy predefined objectives; and,
- (d) Modify the content network in accordance with the results of the evaluation.
- 45) Apparatus according to claim 44, wherein the predefined objectives include the effectiveness of a content instance sequence at retaining a user's interest.
- 46) Apparatus according to claim 44, the apparatus being adapted to perform the method of any one of the claims 11 to 43.
- 47) Apparatus for controlling the presentation of content instances, the apparatus being substantially as hereinbefore described.
- 48) A computer program product for controlling the presentation of content instances, the computer program product including computer executable code which when executed on a suitable processing system causes the processing system to perform the method of any one of the claims 11 to 43.
- 49) A method of controlling the presentation of content to a user using a processing system, the method including causing the processing system to:
- (a) Receive a content indication representing content to be displayed;
- (b) Present the content in accordance with the content indication; and,
- (c) Selectively distributing the content indication to at least one of:
- (i) Other processing systems; and,
- (ii) Other users; and,
- (d) Selectively modify the content indication in accordance with predetermined mutation rules prior to at least one of:

- 66 -

- (i) Presenting the content; and,
 - (ii) Distributing the content.
- 50) A method according to claim 49, the content indication being the content, the method including selectively modifying the content indication by modifying the content.
- 5 51) A method according to claim 49, the content indication being a content specification defining the content to be presented, the method including selectively modifying the content indication by modifying the content specification to thereby modify the content presented.
- 52) A method according to claim 51, the content specification including a number of parameters defining the content to be presented, the method including:
- 10 (a) Modifying the content specification by modifying the parameters; and,
- (b) Presenting the content in accordance with the parameters.
- 53) A method according to claim 51 or claim 52, the content specification including a computer program or script, the method including causing the processing system to execute the computer program or script to thereby allow the content to be presented.
- 15 54) A method according to any one of the claims 51 to 53, the content specification being a URL, the method including causing the processing system to present the content as a web page.
- 55) A method according to any one of the claims 49 to 54, the content being a content collection, the content collection including one or more content instances.
- 56) A method according to claim 55, the content instances including at least one of:
- 20 (a) Images;
- (b) Textual information;
- (c) Audio information;
- (d) Executable code;
- (e) Display code;
- 25 (f) Data objects;
- (g) Links to other content; and,
- (h) Multimedia objects.
- 57) A method according to claim 55 or claim 56, the method including causing the processing system to present the content instances in accordance with a template, the template being determined in
- 30 accordance with the content indication..
- 58) A method according to any one of the claims 55 to 57, the processing system being coupled to a store for storing a number of content instances, the method including:
- (a) Obtaining one or more content instances from the store; and,
- (b) Presenting the content including the obtained content instances.
- 35 59) A method according to claim 49, the method including at least one of:
- (a) Selecting one or more of the number of content instances in accordance with the parameters; and,
- (b) Modifying one or more of the content instances in accordance with the parameters.

- 67 -

- 60) A method according to any one of the claims 49 to 58, the content being in the form of a web-page, the content indication being a URL, the method including causing the processing system to:
- (a) Modify the URL; and,
 - (b) Using a re-direct process to present a web-page in accordance with modified URL.
- 5 61) A method according to any one of the claims 49 to 59, the method of modifying the content indication including:
- (a) Transferring the content indication to the processing system using a form; and
 - (b) Causing the processing system to:
 - 10 (i) Receive the form;
 - (ii) Modify the content indication; and,
 - (iii) Distribute the modified content indication.
- 62) A method according to claim 61, the form being an HTML form.
- 63) A method according to any one of the claims 49 to 62, the mutation rules defining at least one of:
- 15 (a) Whether the content indication is to be modified; and,
 - (b) The nature of any modification to be performed.
- 64) A method according to any one of the claims 49 to 63, the method including causing the processing system to determine the mutation rules from at least one of:
- (a) A store coupled to the processing system; and,
 - (b) The content indication.
- 20 65) A method according to any one of the claims 49 to 64, the mutation rules including modifying the parameters:
- (a) Randomly;
 - (b) By selecting alternative parameters from a predetermined list;
 - (c) In accordance with input commands received from a user; and,
 - 25 (d) By modifying the parameters in accordance with predetermined rules.
- 66) A method according to any one of the claims 49 to 65, the method including causing the processing system to:
- (a) Maintain a log, the log indicating previous presentations of the respective content; and,
 - (b) Modify the content indication in accordance with the respective log.
- 30 67) A method according to claim 66, the processing system including a store, the method including causing the processing system to maintain the log in the store.
- 68) A method according to claim 66 or claim 67, the method including causing the processing system to maintain the log in the content specification.
- 69) A method according to any one of the claims 49 to 68, the processing system including a base station
- 35 coupled to one or more end stations via a communications network, the method including:
- (a) Causing the end station to;
 - (i) Receive the content indication from another end station; and,

- 68 -

- (ii) Transfer at least a portion of the content indication;
 - (b) Causing the base station to:
 - (i) Receive the content indication portion from the end station;
 - (ii) Determine the content for presentation in accordance with the content indication portion;
 - 5 (iii) Transfer the selected content to the end station via the communications network; and,
 - (c) Causing the end station to display the selected content.
- 70) A method according to claim 69, the method including causing the base station to modify the content indication portion.
- 71) A method according to claim 69 or claim 70, the content indication being a content specification, and
10 the content indication portion being parameters included in the content specification.
- 72) A method according to any one of the claims 49 to 71, the method including causing the processing system to:
- (a) Receive new content from user;
 - (b) Modify content indications to thereby cause the new content to be presented.
- 15 73) A method according to claim 72, the method including:
- (a) Causing the end station to:
 - (i) Receive the new content from the user; and,
 - (ii) Forward the new content to the base station; and,
 - (b) Causing the base station to:
 - 20 (i) Receive the new content;
 - (ii) Store the new content in a store; and,
 - (iii) Modify one or more content indications to thereby cause the new content to be displayed.
- 74) A method according to any one of the claims 49 to 73, the method including causing the processing
25 system to:
- (a) Receive input commands from a user; and,
 - (b) Define a user defined content indication in accordance with input commands, the user defined content indication being adapted to cause content selected by the user to be presented.
- 75) A method according to any one of the claims 49 to 74, the method including causing the processing
30 system to:
- (a) Provide an indication of available content;
 - (b) Allow the user to select available content in accordance with the available content indication; and,
 - (c) Generate a user defined content indication in accordance with the selected content, the user
35 defined content indication being adapted to cause the selected content to be displayed.
- 76) A method according to claim 75, the method including causing the processing system to:
- (a) Monitor the distribution of user defined content indications; and,

- 69 -

- (b) Provide an indication of the distribution to one or more users.
- 77) A method according to claim 76, the method including causing the processing system to:
- (a) Comparing the distribution of a number of user defined content indications or user-submitted content instances;
 - 5 (b) Assess the relative success of the user defined content indications in accordance with the results of the comparison; and,
 - (c) Providing an indication of the relative success to one or more users.
- 78) A method according to any one of the claims 49 to 77, the method including distributing the content indication in accordance with input commands received from the user.
- 10 79) A method according to any one of the claims 49 to 78, the content including web pages, the web pages having one or more links to other web pages.
- 80) A method according to claim 79, the method including modifying the content by modifying the links.
- 81) A method according to claim 80, the method including:
- (a) Monitoring the number of times each web page is viewed; and,
 - 15 (b) Modifying the links in accordance with the relative number of times each page is viewed.
- 82) A method according to any one of the claims 49 to 81, the method being a method according to any one of the claims 1 to 8 or 11 to 43.
- 83) Apparatus for controlling the presentation of content to a user, the apparatus including a processing system adapted to:
- 20 (a) Receive a content indication representing content to be displayed;
 - (b) Present the content in accordance with the content indication; and,
 - (c) Selectively distributing the content indication to at least one of:
 - (i) Other processing systems; and,
 - (ii) Other users; and,
 - 25 (d) Selectively modify the content indication in accordance with predetermined mutation rules prior to at least one of:
 - (i) Presenting the content; and,
 - (ii) Distributing the content.
- 84) Apparatus according to claim 83, the apparatus being adapted to perform the method of any one of the claims 49 to 82.
- 30 85) A computer program product for controlling the presentation of content to a user, the computer program product including computer executable code which when executed on a suitable processing system causes the processing system to perform the method of any one of the claim 49 to 82.
- 86) A method according to any one of the claims 1 to 10, wherein the processing system selectively
- 35 modifies the content definition.
- 87) A method of controlling the presentation of content, the method including, in a processing system:
- (a) Presenting content to a user in accordance with a content definition;

- 70 -

- (b) Causing the content definition to be modified to thereby selectively modify content to be presented, to thereby increase the frequency of presentation of more popular content.
- 88) A method according to claim 87, wherein the content definition includes a content network defining sequences of content, and wherein the method includes, in the processing system:
- 5 (a) Determining one or more responses provided by a user in response to the presentation of the one or more content instances; and,
- (b) Modifying the content network in accordance with the effectiveness of a content sequence at retaining a user's interest.
- 89) A method according to claim 87, wherein the content definition includes a content indication for
- 10 distribution to one or more processing systems, and wherein the method includes, iteratively modifying content indications to thereby increase the distribution of content indications corresponding to more popular content.
- 90) A method according to claim 89, wherein if the modification results in more favourable content being presented then this increases the likelihood of distribution of the content indication to one or
- 15 more users.
- 91) A method according to any one of the claims 87 to 90, wherein the method is a method according to anyone of the claims 1 to 8, 11 to 43, or 49 to 82.

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